FREEFALLIN': A CRASH COURSE IN CANOPY PILOTING

KNOWLEDGE

VOL 5 APRIL 2011

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY



AN OUNCE OF PREVENTION ...

TAMING HEAT INJURIES

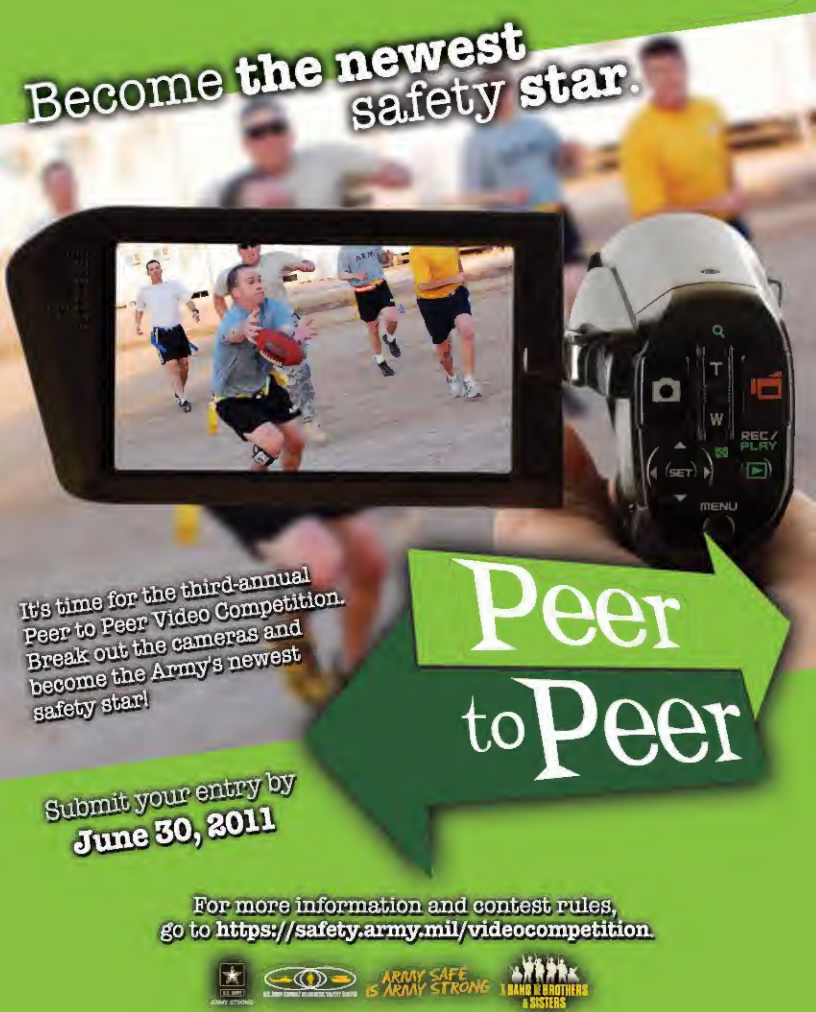
- DISTRACTED DRIVING
- BOATING SAFETY
- TRUST YOUR INSTRUMENTS

+

GETTING BACK TO THE BASICS

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Peer to Peer
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LEADERS SOLDIERS CIVILIANS FAMILIES

THIS MONTH >>CONTENTS

4 From the DASAF

6 Getting Back to the Basics

12 A Crash Course in Canopy Piloting

18 Are You a Distracted Driver?

22 Treat the Heat

26 Trust Your Instruments

28 My 'Lucky' Day

32 Are Your Tires Full of It?

36 Operator Distraction on the Airfield

38 Driving on 'Snooze Control'

42 What to Know Before You Mow

44 Accident Briefs

SAFETY >>FEATURES

8 HE RAN ME DOWN

14 RISK VERSUS BENEFIT

30 A ROUGH DAY ON THE LAKE

FROM THE >>COVER



AN OUNCE OF PREVENTION ... 20

MEDIA >>RESOURCES

Posters

ONLINE >>EDITION

https://safety.army.mil

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U.S. ARMY COMBAT READINESS/SAFETY CENTER

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Mission statement: The United States Army Combat Readiness/Safety Center (USACR/Safety Center) supports our Army by collecting, analyzing and communicating actionable information to assist Leaders, Soldiers, Families and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please e-mail comments to **safe.knowledge@conus.army.mil**.

Knowledge is published monthly by the U.S. Army Combat Readiness/Safety Center, Bldg. 4905, 5th Ave., Fort Rucker, AL 36362-5363. Address questions regarding content to the managing editor at (334) 255-2287. To submit an article for publication, e-mail safe.knowledge@conus.army.mil or fax (334) 255-8044. We reserve the right to edit all manuscripts. Address questions concerning distribution to (334) 255-2062. Visit our Web site at https://safety.army.mil.

Knowledge provides a forum for Soldiers, Leaders and safety professionals to share best practices and lessons learned and maintain safety awareness. The views expressed in these articles are those of the author and do not necessarily reflect the official policy or position of the U.S. Army, Department of Defense or the U.S. Government. Contents are specifically for accident prevention purposes only. Photos and artwork are representative and do not necessarily show the people or equipment discussed. Reference to commercial products does not imply Army endorsement. Unless otherwise stated, material in this magazine may be reprinted without permission; please credit the magazine and author.



REDOUBLING OUR EFFORTS

After one of the coldest and snowiest winters on record, many of our Soldiers, Family members and Civilians are looking forward to the approach of spring and the chance to get outside for some eagerly awaited sunshine and balmy temperatures. Before we take advantage of all the spring and summer seasons have to offer, however, I'd like to congratulate each of you on a job well done this past fall and winter. Throughout fiscal 2011, our accidental fatalities have remained consistently below last year's numbers by at least 10 percent, with losses in privately owned vehicles down by as much as 25 percent at any given time. These reductions show that even in the worst of weather conditions, our Army Family is doing the right thing for safety. Thank you all for your efforts every day!

The warmer months offer abundant opportunities for fun with Family and friends, but historically, they're also the most dangerous time of year for our Band of Brothers and Sisters. Far too many Soldiers die every year in accidents associated with "spring fever," whether on the road, open water or any other number of scenarios. For example, during 2010, we lost 74 Soldiers in off-duty accidents between April and September — an average of just over 12 deaths per month — due primarily to POV, motorcycle and pedestrian incidents. After a particularly brutal winter, there's little doubt our Soldiers will be especially eager to take their motorcycles out of storage, enjoy a road trip in their POVs or let off a little steam with friends at local lakes and beaches. As Leaders, peers, Family members and Civilian co-workers, we must redouble our efforts this spring and summer to keep all our Soldiers safe and in the fight.

Just as with our past successes, engagement will be critical to this effort. Although the problem areas we see most — speed, drinking and driving, lack of seat belts in POVs or personal protective equipment on motorcycles — are deadly in many situations, the solution to them is often as easy as a simple conversation with an at-risk Soldier. For Leaders, this means showing their Soldiers they care by taking a personal interest in their off-duty safety and holding them to the standard, even after duty hours. Indiscipline doesn't have to be fatal, and it's up to Leaders to ensure their Soldiers realize the consequences of risky behavior.

Active engagement by friends and Family members is equally vital, for they have access to their Soldiers when Leaders don't. Engaging these two groups is a Leader responsibility as well, so their inclusion in the unit's safety programs should be a top priority. Data from the Army Readiness Assessment Program show our Army's safest units have adopted this "village" approach to safety by utilizing every available asset in their safety programs. Our Soldiers deserve nothing less than the full effort and focus of all their Leaders and loved ones, so extend an invitation to your unit's Family readiness groups or quality of life representatives before your next safety stand-down.

As always, the USACR/Safety Center stands ready to help you keep your Soldiers safe in the coming months. Beginning April 1, the annual Safe Spring/Summer Campaign will go live via our website, https://safety.



army.mil, and be available through Sept. 30. This year's theme, "What Have You Done to Save a Life Today?" asks a crucial question of our Army Family and is designed to provoke thought and conversation on our most pressing safety issues through media products, including public service announcements, posters and feature articles covering more than 15 topics. The ready-made campaign presents a great opportunity for Leaders to engage with their Soldiers, enhance their own seasonal safety programs and reach out to Family members and the community for help in keeping the warm days of spring and summer both fun and safe.

To help reinforce the appropriate attitudes and behaviors necessary for promoting off-duty safety among our Soldiers, TRADOC, along with the USACR/Safety Center, has recently introduced a new tool for Leaders and Soldiers called **Off-Duty: On Guard**. This tool helps to raise the awareness level of Soldiers about the decisions they make, while giving them practice in intervening in the unsafe decisions of others. Currently, there are two modules: Beyond the Waterfront and Full Throttle. In each of these modules, participants make decisions for their playable characters and then see how those decisions play out.

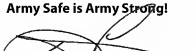


This tool can be used in small groups with a facilitator or self-instructed, self-paced. To preview this dynamic, interactive tool, visit **http://www.tradoc.army.mil/offdutyonguard/**.

The third module of our Better Opportunities for Single Soldiers Safety Factor presentation will also be released April 1, so be sure to update your current toolkit with the latest video clips and information available on our Army's most common risk takers. Finally, continue to encourage your Soldiers to participate in the third-annual Peer to Peer video competition, which runs through June 30. Prize packages totaling more than $4,000 to benefit your local BOSS programs are up for grabs, and your Soldiers will no doubt enjoy the opportunity to showcase their creativity while sending a positive safety message. Like the Safe Spring/Summer Campaign, both the Safety Factor and Peer to Peer competition are available on our website.

Thank you again for your part in making fiscal 2011 one of our safest years yet, and remember your commitment to safety is critical in the weeks and months ahead. Challenge both yourself and your Soldiers to save a life, and get Families involved in the process. There's no better time to engage on safety than today!

Army Safe is Army Strong!



WILLIAM T. WOLF
Brigadier General, USA
Director of Army Safety



Getting Back to the BASICS

W. RAE MCINNIS
G3 Operations Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

The basics may include using the proper equipment to inflate a split-ring rimmed tire, properly training and licensing drivers, conducting a thorough passenger briefing or making on-the-spot corrections during training exercises. Combinations of high optempo, fatigue, personnel turnover, overconfidence and complacency have caused us to forget the basics, and our Soldiers and our Army are paying the price. Injuries, destruction of equipment and, most tragically, fatalities are often the consequences of letting down our guard during basic day-to-day operations.

The leading causes of aviation and ground accidents continue to be overconfidence and complacency, often resulting in Soldiers failing to execute operations using the task, conditions and standards to which they were trained. Evidence suggests that Leaders rarely check to ensure that routine duties — the simple things — are performed to standard. Unsupervised, a Soldier's desire to accomplish the mission can lead to taking shortcuts. Shortcuts in routine duties often lead to shortcuts in more complex tasks ... and those shortcuts often lead to disaster.

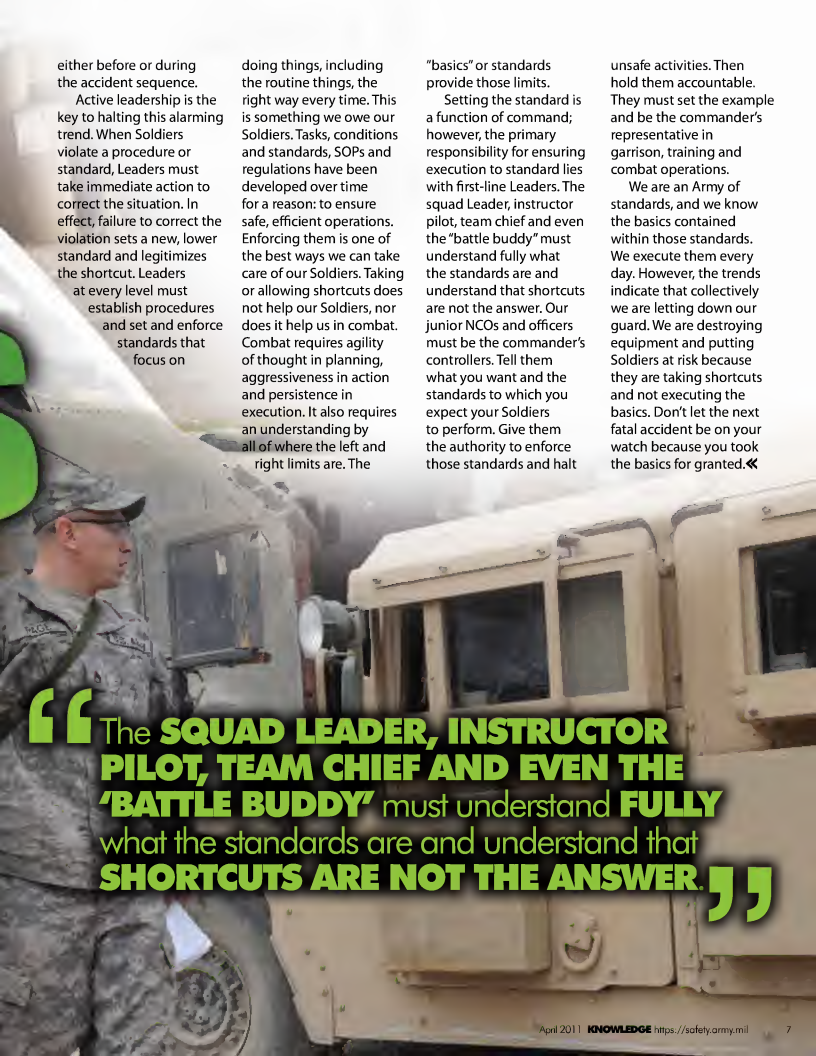
We have a long list of such accidents in our database here at the U.S. Army Combat Readiness/Safety Center. These accidents share a common thread — somewhere in the accident sequence, someone knowingly violated a basic standard or standing operating procedure (SOP). This was usually done with good intentions, often trying to make it easier to accomplish the mission. In many of the cases, Leaders failed to take corrective action

either before or during the accident sequence.

Active leadership is the key to halting this alarming trend. When Soldiers violate a procedure or standard, Leaders must take immediate action to correct the situation. In effect, failure to correct the violation sets a new, lower standard and legitimizes the shortcut. Leaders at every level must establish procedures and set and enforce standards that focus on doing things, including the routine things, the right way every time. This is something we owe our Soldiers. Tasks, conditions and standards, SOPs and regulations have been developed over time for a reason: to ensure safe, efficient operations. Enforcing them is one of the best ways we can take care of our Soldiers. Taking or allowing shortcuts does not help our Soldiers, nor does it help us in combat. Combat requires agility of thought in planning, aggressiveness in action and persistence in execution. It also requires an understanding by all of where the left and right limits are. The "basics" or standards provide those limits.

Setting the standard is a function of command; however, the primary responsibility for ensuring execution to standard lies with first-line Leaders. The squad Leader, instructor pilot, team chief and even the "battle buddy" must understand fully what the standards are and understand that shortcuts are not the answer. Our junior NCOs and officers must be the commander's controllers. Tell them what you want and the standards to which you expect your Soldiers to perform. Give them the authority to enforce those standards and halt unsafe activities. Then hold them accountable. They must set the example and be the commander's representative in garrison, training and combat operations.

We are an Army of standards, and we know the basics contained within those standards. We execute them every day. However, the trends indicate that collectively we are letting down our guard. We are destroying equipment and putting Soldiers at risk because they are taking shortcuts and not executing the basics. Don't let the next fatal accident be on your watch because you took the basics for granted.«



"The **SQUAD LEADER, INSTRUCTOR PILOT, TEAM CHIEF AND EVEN THE 'BATTLE BUDDY'** must understand **FULLY** what the standards are and understand that **SHORTCUTS ARE NOT THE ANSWER.**"

He Ran Me

BOB VAN ELSBERG
Strategic Communication Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.



How long does it take for things to go horribly wrong on the highway? In less than three seconds on a September night, a distracted driver forever changed a Soldier's life.

The Harley-Davidson emitted a low rumble as Sgt. 1st Class Ron Gullion waited for a break in traffic to turn left into the entrance to the K-Mart where his wife worked. As he sat on the idling motorcycle, something caught his eye — headlights bouncing up and down as a vehicle entered the road on his right. Glancing over his right shoulder, he saw a Ford Ranger speeding straight at him.

"I thought, 'Oh crap, he's going to hit me!'" Ron said. Quickly glancing back to the left, he looked for a break in the oncoming traffic to cross the road and get out of the pickup's way. But there weren't any breaks, and trying to cut through the fast-moving oncoming traffic would be deadly.

Waving his arms and screaming, Ron tried unsuccessfully to get the driver's attention. He'd just begun to leap off when the Ranger's bumper slammed into his right leg, knocking him off the bike and several feet across the intersection. Amazingly, he landed on his feet, but with his right leg badly injured, he immediately collapsed onto the road. As he did, the pickup ran over the bike and pushed it farther into the intersection, stopping only a few feet from Ron.

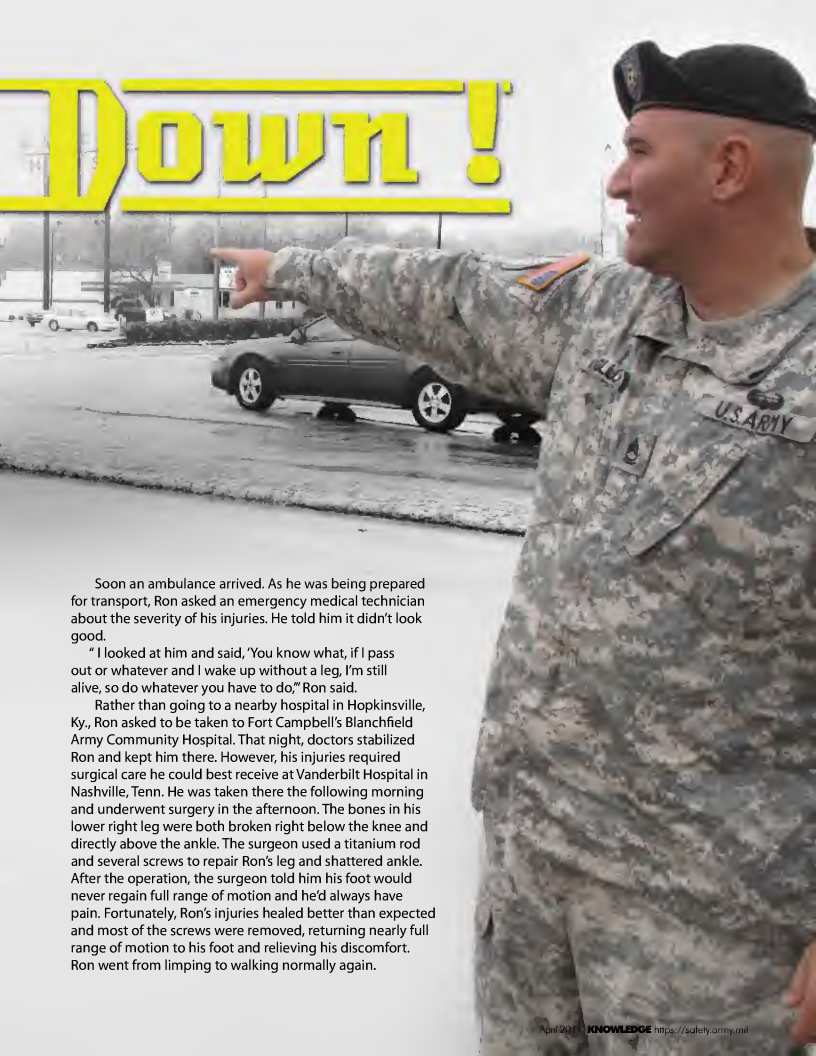
Dazed, he lay in the street and saw the pickup's driver get out and start walking toward him. Unsure whether the driver was drunk or what was going on, Ron warned him away. Instead, the driver kept coming and said, "I just want to know if you're OK." Angry at being run down in the road, Ron yelled at him, "Get away! I'm not OK. You just ran over me with your truck!"

Before long, the police arrived and Ron's sense of humor returned as he began joking with them. More than anything, he was just glad to be alive. The police soon began questioning the driver. They were amazed to discover he'd apparently been lighting his pipe while trying to cross a busy intersection. Police estimated he was going at least 25 mph when he hit the Harley.

Beth Gullion, Ron's wife, learned of the accident when she was paged to take a phone call. A woman on the other end told her the news. Immediately, Beth ran out of the store, across the parking lot and toward the emergency vehicles in the street. She was shocked at what she saw.

"I looked down on the ground and I saw Ron," she said. "… When I looked over at his leg, I saw it was bent backward and up. You could tell it was broken."

Down!



Soon an ambulance arrived. As he was being prepared for transport, Ron asked an emergency medical technician about the severity of his injuries. He told him it didn't look good.

"I looked at him and said, 'You know what, if I pass out or whatever and I wake up without a leg, I'm still alive, so do whatever you have to do,'" Ron said.

Rather than going to a nearby hospital in Hopkinsville, Ky., Ron asked to be taken to Fort Campbell's Blanchfield Army Community Hospital. That night, doctors stabilized Ron and kept him there. However, his injuries required surgical care he could best receive at Vanderbilt Hospital in Nashville, Tenn. He was taken there the following morning and underwent surgery in the afternoon. The bones in his lower right leg were both broken right below the knee and directly above the ankle. The surgeon used a titanium rod and several screws to repair Ron's leg and shattered ankle. After the operation, the surgeon told him his foot would never regain full range of motion and he'd always have pain. Fortunately, Ron's injuries healed better than expected and most of the screws were removed, returning nearly full range of motion to his foot and relieving his discomfort. Ron went from limping to walking normally again.



After two days in the hospital, he went home. The doctor gave him a prescription for a hospital bed, which he used at home for three months during his recovery. He ultimately returned to duty with the Warrior Transition Battalion (WTB) Fort Campbell as the noncommissioned officer in charge of Morale, Welfare and Recreation. He requested that position so that he could create what he named the Healing Outside of a Hospital (HOOAH) program. The program's goal is to encourage WTB Soldiers to see themselves as "enabled," not disabled, by getting them involved in sports and outdoor recreation activities.

Considering what happened that night on Fort Campbell Boulevard, Ron is grateful he survived. Although he'd arrived at the K-Mart without all his normal riding gear, he'd borrowed his wife's helmet and riding gloves and was wearing long pants, boots and eye protection. He believes the piece of personal protective equipment (PPE) that helped him the most was his riding boots. A long scar going up his right foot shows the damage done during the collision. If not for the boots, he believes he would have lost the foot. And that night, even though he rode less than a mile, wearing PPE proved a prudent choice.

"Don't ever think it's just a short ride and I don't need it," he said. "It doesn't matter how far you're going or where you're at, an accident can happen any time."

Ron also has a message for impatient, distracted drivers such as the one who hit him.

"Don't be in such a big frickin' hurry," he said, explaining that was a big part of the problem with the driver who hit him. The Ranger's driver only glanced briefly to the left — never looking directly ahead into the intersection — before shooting out into road. Distracted by trying to light his pipe, he never noticed Ron stopped ahead in his path. However, reckless driving is a common problem drivers and riders must deal with.

Ron said, "I see that every day on the highway. Someone will blow by me and I'll catch up with them at a light or in slow-moving traffic. I wish I could tell them, 'You're not getting anywhere faster than anyone else — it just feels faster. You could get there a lot safer if you slowed down.' Hurrying leads to not paying attention — and not paying attention leads to accidents."«

RIDE FOR YOUR LIFE

The Motorcycle Mentorship Program establishes voluntary installation-level motorcycle associations where less experienced riders and seasoned riders can create a supportive environment of responsible motorcycle riding and enjoyment. This can create positive conduct and behavior and serve as a force multiplier that supports a commander's motorcycle accident prevention program.



MMP
MOTORCYCLE MENTORSHIP PROGRAM

Check out the USACR/Safety Center MMP website for some examples of active mentoring programs.

https://safety.army.mil/mmp/



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a CRASH

SGT. 1ST CLASS TOM BOVEE AND
SGT. 1ST CLASS GREG WINDMILLER
U.S. Army Parachute Team
Fort Bragg, N.C.



The summer's near and the time is right … for jumping out of planes!

Just returning from a deployment? Haven't been to the drop zone in a while? Visiting a new drop zone or just new to skydiving? No matter what your reason for skydiving, you want to ensure your experience is enjoyable and safe. Although this article is not meant to be a complete course or a replacement for a qualified coach or instructor, here are some tips to think about before heading to the drop zone.

COURSE in Canopy Piloting

According to the U.S. Parachute Association, the biggest cause of skydiving fatalities during 2010 was individuals who, while descending under perfectly good canopies, failed to follow basic safety procedures. Paying attention to the drop zone layout, winds and obstacles — in the air and on the ground — is the key to safe and successful landings. Here are some things you can do to help raise your level of awareness:

- Know your drop zone's layout, obstacles and possible "outs" (landing areas not on the drop zone).
- Check the wind direction and speed before boarding the aircraft and know your limits.
- Follow the landing pattern established by the drop zone's standing operating procedure.
- When returning to jumping after a break, ensure you jump with a canopy comparable in size and type to what you were proficient with before the break and don't be afraid or embarrassed to upsize.
- Don't downsize canopies too quickly. The faster you downsize, the faster you become a statistic.
- Avoid attempting high-performance landings when you're not ready. A good downwind, base and final is the safest and best technique to use and is a safe way to start off right.
- Never try to impress anyone on the ground. The paramedics don't care if you can do tricks. The most impressive landing is the one that allows you to immediately jump again.

> "The most **IMPRESSIVE** landing is the **ONE** that **ALLOWS** you to immediately **JUMP** again."

The best way to determine if you are being safe is to ask yourself this question: "Am I proficient at what I am getting ready to do and am I comfortable with it?" If there is any doubt, then the answer should be, "Don't do it!" As a regular part of pre-landing checks, consider making the following a part of your landing rituals and routine:

- Perform a controllability check after the canopy is open and you have cleared your airspace.
- Watch jumpers below you to see what the pattern is. The wind direction could have changed since you took off.
- Keep an eye on your altimeter. It is just as important on approach and landing as during freefall.
- Identify where you are in relation to hazards on the ground and make preparations to avoid them.
- Watch out for fellow jumpers and keep your head on a swivel. The lower jumper has the right of way.

In the end, make sure you have fun and be safe! "Blue Skies!"

Risk versus Benefit



CHIEF WARRANT OFFICER 4 RICHARD A. CHAGNON
Detachment 47, Operational Support Aircraft
Oregon Army National Guard
Salem, Ore.

With our visibility down to three miles, we had to wait for brigade commander approval to launch our aircraft. Time was running out. We knew if we didn't get off the ground soon to evacuate the two Soldiers, they would die.



The injured Soldiers had been hit with an improvised explosive device (IED) blast and were listed as "urgent surgical." Every crewmember onboard the UH-60 medevac aircraft was anxious to get going.

We finally received launch approval and were on our way to the point of injury (POI). It had been 18 minutes since we first received the 9-line medevac request and about 30 minutes since the IED blast occurred. With visibility deteriorating, the pilot in command (PC) in our chase aircraft and I were talking about the weather and possible solutions for our return flight to the combat surgical hospital (CSH).

It was still another 15 minutes or so to the POI. My co-pilot advised me he was going to slow down to 70 or 80 knots due to decreased visibility. I knew slowing down would take us longer to reach the POI; however, it was the best course of action. I acknowledged and reiterated our intentions to our chase bird, and they agreed. I continued to work on a plan for the return flight to the CSH based on our deteriorating weather conditions.

You could sense the stress in everyone's voice within our aircraft and on the radio from our chase bird. The weather was not looking good for continued flight, yet two Soldiers were critically injured and counting on us to get them to the hospital.

We arrived near the POI location 32 minutes after we took off from the base. The visibility had decreased to about one mile. Upon arrival to the landing zone (LZ), we contacted the ground unit to advise them we were a few minutes out. To locate the LZ, the 9-line stated it would have green chemical light sticks on a secured dirt road. We knew we were close to the LZ, but we couldn't see the chem lights. The chalk leader of the ground unit called us on the secure FM radio and said he could see us on the south side of their position. He mentioned the wind was out of the northwest and the dirt road was oriented east and west.

We completed our before-landing checks and I told the crew to make sure they were secured in their seats with seat belts and shoulder harnesses fastened. With the dust, wind, limited visibility and our landing to an unimproved surface,

we had a good chance for brownout. As we headed north and started our descent, my medic said he had the chem lights in view at 10 o'clock low. I glanced down from my position in the left pilot's seat and confirmed. My co-pilot made a slight left turn and he also acknowledged seeing the lights.

That's when it happened. We were on short final to the west, and the PC of the chase bird radioed they had lost us in the dust. Both my crew chief and medic looked up and behind the aircraft. Our medic spotted the chase aircraft about two rotor-discs behind and 50 feet above us. He yelled, "They're almost on top of us!" By the time I got to the radio to direct them away, they had flown over the top of us, missing us by no more than 30 feet.

The scenario above is fictional; however, it very well could have happened. Night flying in a combat zone is extremely dangerous and, with limited visibility, presents many challenges. Even with good initial risk mitigation and controls in place, changes in risk due to unforeseen hazards are constantly occurring.

Crews are increasingly called upon to execute hasty risk assessments. Once an aircraft launches and is executing its mission, the "supervise and evaluate" step of the risk management process has to be the PC's responsibility. The PC also has to continue with the process and reevaluate the situation as hazards change and, as necessary, change the controls based on new risks.

There is also the additional weight in the thought process of how your decisions affect others and, in this case, the injured Soldiers. Effective risk management relies upon Leaders not accepting any risk unless the potential benefit outweighs the potential loss. Risk mitigation must be objective and completed at the briefing table with the crew, briefer and final mission approval authority. However, reevaluating risks during a mission takes more than a group of people sitting in the briefing room.

Lessons learned from this scenario can help us plan better and make good decisions when the "real" incident occurs. Is transporting the wounded worth getting an aircraft shot up or having an accident because of deteriorating weather, brownout or threat? Perhaps the ground unit can medevac the wounded to the CSH? Explore all options to effectively reduce risks and apply controls, understanding those risks may change unexpectedly. Commanders, pilots and crewmembers all must ask, "Does the benefit outweigh the risk or is the risk too great for the benefit?"«



ARE YOU READY?

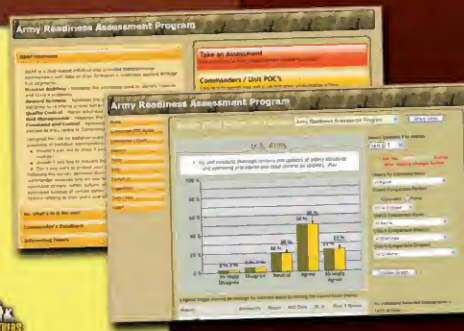
Wouldn't you like to know if your unit is about to experience a mishap?

Wouldn't you like to prevent the loss of personnel and equipment?

Don't you want to protect your combat power?

ARAP

ARMY READINESS ASSESSMENT PROGRAM



ARAP is a Web-based initiative that provides battalion-level commanders with data on their formation's readiness posture.

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Are You a Distracted Driver?!?

BARRY D. JOHNSON
Marine Corps Air Station New River
Jacksonville, N.C.



How many times have you answered your cell phone, ate or drank, read a book, adjusted your radio or put on makeup while driving? Many drivers today consider these tasks as part of their normal driving habits, getting away with it for so long they consider it normal. Unfortunately, sometimes the result of distracted driving is mangled vehicles and dead or injured victims.



The National Highway Traffic Safety Administration reports that almost 20 percent of all crashes in 2008 involved some type of distracted driving. Those crashes killed nearly 6,000 people and injured almost 500,000. These crashes could have been avoided had drivers paid attention to driving and not doing other things.

Distractions cause crashes when drivers take their hands off the wheel, look away from the road or mentally focus on something other than driving. As a result, the lengthened reaction time may prevent drivers from responding in time to avoid a crash. In addition, distractions may cause drivers to lose situational awareness, missing things like changes in speed limits, stop signs and other warning signs and traffic signals. These errors behind the wheel may also lead to a crash.

Have you ever been guilty of distracted driving? Think about when you have been driving. Were there times when you took your eyes off the road? What happened? Many times, perhaps nothing dangerous resulted. However, were there times when you realized the vehicle ahead had stopped or slowed down and you had to jam on the brakes or swerve to avoid a crash? Have you ever found yourself running a red light that just a few seconds ago was green? This is what happens when motorists aren't focused on their driving. These minor and sometimes innocent distractions can put us and other drivers in danger.

FYI

For more information on distracted driving, visit the National Highway Traffic Safety Administration website at www.distracteddriving.gov.

There are many ways to prevent distracted driving. One is to pull off the roadway and park in a safe place to answer calls or texts. As tempting as it might be, avoid adjusting your GPS navigational device while driving. Know where all the controls for your vehicle are located so you don't have to take your eyes off the road when you need to operate them. Plan ahead and know your route; avoid trying to look at a map or read a printout of directions while you're driving. Lastly, keep children properly secured in a seat belt or child seat and pets secured in a carrier or a seat belt harness.

Preventing distractions while driving should be part of your composite risk management before starting out on any trip. Reducing distractions will greatly increase the chance you will arrive at your destination safely.





AN OUNC PREVE

LISA YOUNG
U.S. Army Public Health Command (Provisional)
Aberdeen Proving Ground, Md.

The weather is warming up, and summer heat will arrive before we know it. Now is the time to start thinking about preventing heat injuries in yourself and other Soldiers.



CE OF NTION...

The incidence of heat stroke hospitalization in Soldiers has increased eight-fold during the last 20 years, according to the latest Army Heat Injury Prevention Policy Memorandum. Heat injuries can occur in garrison and operational environments, during unit and individual physical training, training exercises, recreational events and even in activities that require very little physical exertion. These injuries are a threat to medical readiness and to the fitness of individual Soldiers.

Commanders and NCOs are charged with putting in place the necessary measures to prevent heat injuries. Medical personnel also have a key role in supporting unit leadership in their efforts to protect Army personnel. In addition, individual Soldiers play a part by following the guidance they are given and paying attention to warning signs in themselves and others.

The primary reference on preventing heat injuries is Technical Bulletin Medical (TB MED) 507, Heat Stress Control and Heat Casualty Management.



This guide covers all aspects of heat injury prevention, including heat mitigation procedures, identifying high-risk individuals, heat acclimatization, fluid and electrolyte replacement, work/rest guidelines, management of heat casualties and vigilance. The 2003 Ranger and Airborne School Students Heat Acclimatization Guide also offers practical guidance to allow Soldiers to perform at their best without

TREAT THE HEAT

TRISH PROSSER, PH.D.
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In Australia, where I'm from, a public health campaign encourages individuals to "slip on a shirt, slop on sunscreen, slap on a hat, slide on some sunnies (sunglasses) and seek shade." While this campaign is directed mainly at preventing skin cancer, the summer sun also puts us at great risk for other health injuries.

Heat injury and illness pose a significant threat to Army personnel, whether deployed, assigned to a training center or just partaking in outdoor recreational activities. Heat-related injuries are the third-most reported medical event within the military over the last 10 years and are responsible for more than 1,300 hospitalizations in the Army alone. Minor heat illnesses such as heat cramps are often the first sign of a heat injury. If not treated properly, the result can be heat exhaustion, which can turn into a major injury such as heat stroke.

Heat Cramps

Heat cramps are muscle pains or spasms — usually in the abdomen, arms or legs — that can occur during strenuous activity. Soldiers who perspire a lot are more likely to suffer from heat cramps because sweating depletes the body of salt. Drinking large quantities of water after exercise can dilute body salts even further, which can worsen heat cramps.

If you believe you're suffering from heat cramps, stop all activity and sit quietly in a cool place. Drink clear juice or a sports beverage or add a half packet of salt from an MRE to a canteen of water. It's best to refrain from strenuous activity for a few hours after the cramps subside because further exertion could lead to heat exhaustion or heat stroke. If the cramps do not subside in one hour, seek medical attention.

Heat Exhaustion

Heat exhaustion is the most common heat injury. A Soldier suffering from heat exhaustion will often look pale with cool, moist skin, but will be sweating profusely. This can be accompanied by feelings of dizziness or faintness, headache, nausea and weakness, as well as increased thirst and a rapid heartbeat.

If a Soldier is suffering from heat exhaustion, there are several steps to take. First, move the victim to the shade and loosen their clothing in an attempt to cool the body. Drink at least a canteen of cool water. You can even pour water on the exposed skin and fan to cool. If available, put ice or sheets that have been soaked in ice water on the neck, armpits and groin. Elevate the legs. If the symptoms do not subside, get the victim medical care.

Heat Stroke

Heat stroke is a medical emergency often resulting from exercise or heavy work in hot environments combined with insufficient fluid intake. When the body's mechanisms for handling heat stress fail, the result can be heat stroke, which can be life-threatening. The main indicator for heat stroke is an elevated body temperature,

succumbing to heat-related injuries. A video, Heat Injury II, Prevention and Treatment, is available as well. In addition, the U.S. Army Public Health Command (Provisional) and U.S. Army Research Institute for Environmental Medicine have developed valuable heat injury prevention products, including posters, videos and pocket guides. These products can be found on the Public Health Command's website at http://phc.amedd.army.mil.

Climate variables (such as temperature and humidity), intensity of activity and individual risk factors interact to cause heat injuries. Individual risk factors include lack of heat acclimatization, cumulative exposure to heat, poor physical fitness, being overweight, concurrent illness, medications/dietary supplements, alcohol use, prior history of heat injury, skin disorders and being over 40 years old. Drinking beverages containing caffeine or alcohol within 48 hours of training also increases the risk of heat injury. Newly mobilized personnel, especially those from cool climates who are



generally greater than 104 F. This can lead to changes in mental status, unconsciousness and coma. Other signs to look for are rapid heartbeat, hurried and shallow breathing, headache, nausea, irritability, confusion and a cessation of sweating. Sometimes, fainting can be the first sign for older adults.

If an individual is suspected of suffering from heat stroke, immediate care can mean the difference between life and death. Call 911 or get the person medical attention as soon as possible. Loosen or remove clothing and cool the body with cool water, ice packs or ice sheets. Have the victim take sips of cool water or a sports drink if they're alert and able. Avoid alcohol and anything with caffeine.

Preventive Measures

To help avoid heat-related injuries, Leaders and Soldiers should:

- **Drink plenty of fluids.** In hot environments, it's possible for the body to lose one liter of fluids per hour. Thirst is not a good indicator of fluid loss. Don't wait until you're thirsty to drink fluids.
- **Be aware of their environment.** If you work in the heat or around heat sources, take whatever steps are possible to control the heat externally. It's also recommended that ice sheets be readily available during high-risk activities to reduce the severity of a heat injury.
- **Take frequent breaks.** As the temperature increases, take more frequent breaks to stay cool.
- **Wear proper clothing.** Loose, lightweight fabrics encourage heat release.
- **Acclimatize.** It takes at least seven to 10 days to get used to working in a hot environment.
- **Stay in shape.** A healthy heart and good muscle tone work more efficiently and generate less heat.
- **Eat light during the workday.** Hot, heavy meals add heat to the body and divert blood flow to aid with digestion. Normal dietary intake typically replaces all salt lost during the day, so there is no need to take salt supplements.
- **Be aware of special heat stress risks.** Caffeine, alcohol, diabetes or medications for high blood pressure and allergies can increase the risk of heat stress.

Conclusion

Each year, Soldiers fall victim to preventable heat injuries. Although Leaders are accountable for their Soldiers' health, Soldiers also have an obligation to mitigate their risk. Stay fit to fight this summer. Take the appropriate preventive measures and monitor yourself and your battle buddies for the signs of heat-related injuries.



> "Fortunately, **HEAT INJURIES** are **PREVENTABLE,** and none need be **FATAL.**"

not properly heat acclimated, are more at risk of becoming a heat casualty. Additionally, training in a compressed timeframe before deployments also increases risk.

Drinking too much water is also a risk. A number of deaths have occurred in the Army due to water intoxication, an electrolyte disturbance in which the sodium concentration in the plasma is too low. Proper water consumption guidelines should be followed to prevent overhydration. Fluid needs can vary based on individual differences (± ¼ quart/hour) and exposure to full sun or full shade (± ¼ quart/hour). Hourly fluid intake should not exceed 1½ quarts, and daily intake should not exceed 12 quarts.

It is essential that commanders, NCOs and medical personnel are educated on preventing heat injuries and implement a risk-management-based, comprehensive heat injury prevention program. Programs must include identification and assessment of hazards in terms of severity and probability, implementation of appropriate controls to reduce heat injuries and evaluation of the effectiveness of control measures. Early recognition of heat exhaustion is critical to prevent progression to a more serious heat injury and death. *(Editor's note: For treatment options for several common heat injuries, see the article "Treat the Heat" on page 22.)*

Soldiers will be exposed to extreme heat conditions as their units train for operational missions. Fortunately, heat injuries are preventable, and none need be fatal. Leaders must assess their unit's missions and training requirements against the risks of operating in warm weather environments. Early recognition and treatment of Soldiers showing symptoms of heat injuries is the key to saving lives.«

FYI

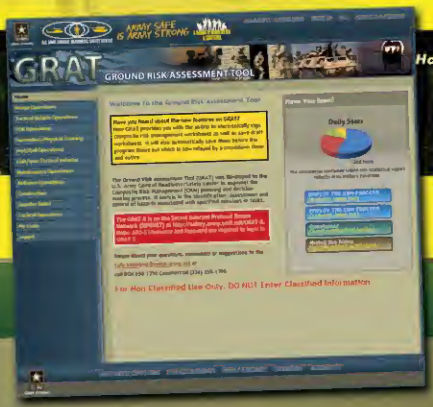
For more information on preventing heat injuries, see Technical Bulletin Medical 507, Heat Stress Control and Heat Casualty Management, at http://phc.amedd.army.mil/home/ or FEMA First Aid for Heat-Induced Illnesses at http://www.fema.gov/hazard/heat/heat_aid.shtm.



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TRUST YOUR

CHIEF WARRANT OFFICER 4 JOHN D. CALLEY
B Company, 2nd Battalion, 224th Aviation Regiment
Virginia Army National Guard Army Aviation Support Facility
Sandston, Va.

In 2006, I was deployed to Iraq with the 2-224th Aviation Battalion. The 224th is an assault battalion of UH-60 helicopters from the Virginia Army National Guard. I was a platoon instructor pilot with about 2,200 flight hours. We were under the command of Marine Expeditionary Force I and had replaced a squadron of Marine CH-46 helicopters. We were based at Al Asad Air Base in the western Al Anbar Province; however, our normal area of operations was from the Syrian and Jordanian borders in the west to Baghdad in the east.

We did the majority of our flying at night and landed primarily at airports or forward operating bases, although we occasionally landed at unimproved areas. Weather was always our main concern, as accurate reporting and observations were difficult to obtain. Ceiling and visibility could and would change with little to no warning. Visibility was particularly problematic because the sand and dust would kick up and sometimes hang in the air for days.

Another hazard at night was the level of illumination — or the lack thereof. When the sky is clear and the moon is full, it's very bright. However, when there was little to no moon, the sky is disturbingly dark. Add a little sandy, dusty haze to the mixture and you have to struggle to find even small visual cues. Yet, as we approached the cities and towns, their artificial lights helped considerably.

We had been in country for about eight months, knew the area well and were comfortable flying mixed aircraft operations with the Marines. On this particular night, I was flying with our S3. He was an experienced pilot in command but didn't have



a lot of recent flight time due to his staff position. Nonetheless, I still had complete confidence in his judgment and flying ability.

We were Chalk 3 in a flight of three. Lead was a Marine UH-1 equipped with forward-looking infrared radar. Chalk 2 was another one of our UH-60 Army aircraft. We were flying west on a low illumination night. The visibility was above our minimum required; however, it was close enough to cause some discussion as to whether we should delay or cancel the mission.

As we flew into deteriorating visibility, I started to feel as if I were in an increasing left turn. It started slowly and was like nothing I had experienced before. I always knew to trust my instruments or, in this case, the heads-up display connected to my night vision goggles. Normally, any leaning sensation or spatial disorientation would be short-lived. Unfortunately, the sensation continued to worsen until I felt I was in about a 30-degree left turn. I continued to trust my instruments and attempted to fly through this condition, all the while hoping it would be temporary. At this point, I should have transferred the flight controls, but I didn't want to create a situation where my pilot (PI) had to do both his job and mine. Besides, we were flying straight and level and everything was working fine.

The weather began to worsen and we finally made the decision to abort the mission. I was OK as long as we made a nice, easy turn to the left, which is how I felt we were turning anyway. When lead announced he was making a 180 to the right, I told my PI, "No way." I stated there was no way I could turn right and maintain aircraft control. I then transferred the controls to him. We executed a slow climbing right 180 — much like an instrument meteorological condition breakup — because we lost sight of the first two aircraft. I think my PI was a little freaked out because there was little warning. The visibility improved as we climbed and we could easily see the lights of AI Asad in the distance.

We recovered without incident and had a thorough debrief. Although I should have done a better job of keeping my crew informed of my decreased ability, I think my training worked, as it should. As a pilot, it's important to recognize what is happening, trust the information your systems are providing, take action when you've reached your limit and rely on your crew to perform their jobs.



MY 'LUCKY' DAY

It was the spring of 1990, and I was stationed at "beautiful" Camp Pendleton, Calif. I had just recently married my high school sweetheart, was two months from pinning on the rank of corporal and was gearing up to go on my first deployment. I thought my life could not get better until I received a phone call from my older brother asking if I was interested in purchasing one of his motorcycles.

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Being that I was stationed in sunny California, the thought of riding a bike down the Pacific Coast Highway was a dream I now had a chance to make come true. My brother had a couple of friends interested in the bike, but he thought he would keep it in the family and give me the first shot at buying it. My wife, on the other hand, was not too excited about the idea of me riding a street bike. She knew my only previous experience was riding dirt bikes in Arizona, and that had been years ago.

Well, I jumped at the offer and was on the road to Phoenix the next weekend to pick up the bike, a fully loaded 1982 Honda Gold Wing. My pride in owning a tour bike was showing as I told my wife of all of the places we were going to explore while enjoying the freedom of riding a motorcycle.

The week after I bought the bike, my staff sergeant had me enrolled in the Motorcycle Safety Foundation's Basic RiderCourse. I was sure it would be a piece of cake. Little did I know it would become quite the challenge to get such a large and heavy bike around that short, tight course. I could have easily breezed through it on the dirt bikes I used to ride, but the Honda was much more difficult to maneuver. I instantly realized it would be a while before I could even think about taking my wife for a Sunday ride.

After I completed the course, I became a licensed motorcycle rider and was eager to get out on the road with my buddies and their bikes. They knew I was a new rider and actually took it slow for the first couple of rides. However, it soon became a challenge to keep up with them. They all had sport bikes, typically called "crotch rockets" — known for their instant speed and maneuverability. They were much different from the large, heavy touring

bike I was riding. As I slowly gained more and more confidence riding, I began to push my limits.

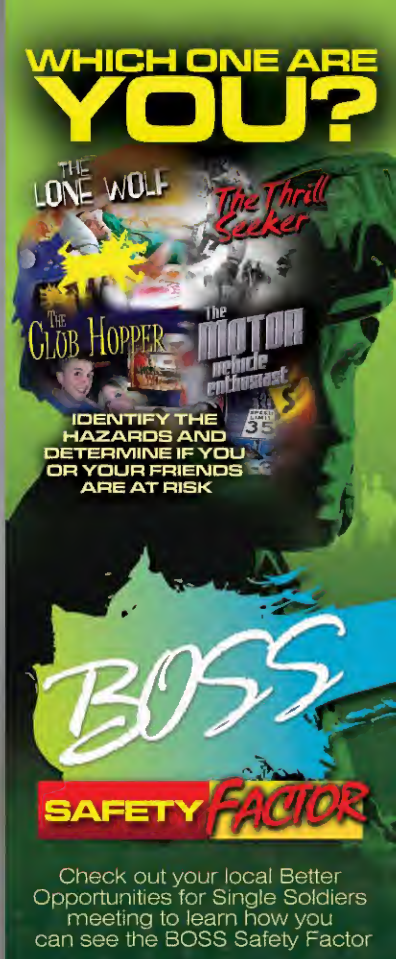
Eventually, I had the confidence to take my wife on a ride with my friends to the town of Julian, Calif. Julian is a small town known for its apple pies and friendly atmosphere, and for months my wife had wanted to visit. I figured what better way to see it than on a bike. So we met my friends, who were eagerly waiting on their sport bikes, and began riding through some of the most beautiful countryside in southern California. Every so often my friends would open up their bikes on a long straightaway when there was no traffic and sometimes I would join them. My wife and I were both young and enjoying the adrenalin rush of the speed and freedom of being on the bike.

As we got closer to Julian, the roads became narrower and the turns tighter. As they rode through a tight 10-mph turn, I was amazed how smoothly their bikes maneuvered. However, it didn't go quite so well for me. I hit the turn going 20 mph and couldn't lean the bike far enough to avoid drifting over the double yellow line. We crossed the oncoming lane and stopped on the far shoulder, where we could "enjoy" looking down from a 100-foot cliff.

We were fortunate there was no oncoming traffic. I was also glad to be wearing a helmet, as it protected me from my wife, who was a "little" upset and slapping me on the back of my head. The ride home was uneventful, and the sale of the bike two weeks later was a blessing.

As I reflect on the situation, I can't believe I let the excitement of riding a motorcycle override my using risk management to recognize I was riding way beyond my experience level. My friends were much more experienced and riding bikes that were much smaller and lighter than mine. If I could turn the clock back, I'd have purchased a smaller bike to learn on while riding on the streets and highways and resisted the urge to push the limits.

My wife and I were lucky not to become part of the landscape that day. However, luck doesn't cut it — not when your life and the life of someone you love are on the line. Don't buy more bike than you can handle, thinking you'll "grow" into it. You may not live that long. And give yourself a break; recognize even Superman had to learn to walk before he could fly. Ride within your skills and, if you're a bit sharper than the average "tack," leave yourself a little margin for safety. After all, when you're headed for the edge of a 100-foot cliff, where would you rather stop — one foot before or one foot beyond?



Rough Day on the Lake



Fishing might not seem like a dangerous activity, but plenty can go wrong any time you drop a boat into the water.

It was my first South Carolina Army National Guard fishing tournament, and I was excited. The tournament was held at Lake Murray, a large, manmade reservoir in the heart of South Carolina that covers 78 square miles with nearly 650 miles of shoreline. I couldn't wait to wet my line in one of the premier fishing locations in the South.

My fishing partner and I thought we had planned for everything. He made sure his boat was in good condition and had personal flotation devices for each of us. We both even bought new equipment and stayed up late the night before the tournament getting everything ready. What we both forgot to do was check the local news channels for the weather forecast.

We got to the lake early that Saturday morning and put the boat into the water. We should have known we were going to have a bad day when my partner fell into the water while pushing the boat off the trailer. We launched soon after his unexpected dip and spent the next four or five hours fishing the shoreline and going in and out of quiet coves.

As we crossed over to the other side of the lake, we heard the distant rumble of thunder.

WEATHER

Weather can be both friend and foe. Calm winds and seas make for enjoyable boating, water skiing and fishing. A fresh breeze and a light chop provide an invigorating sailing or windsurfing experience. But the sudden emergence of dark clouds, shifting and gusty winds, torrential downpours and lightning can turn a day's pleasure into a nightmare of distress. Here are some tips on how to keep your pleasure and safety to a maximum.

Several Days in Advance ...

Start listening for the National Weather Service extended five-day outlooks on NOAA Weather Radio, AM/FM radio and TV. The outlooks give general information to help you decide whether to continue making plans.

The wind also started to pick up and we could see the tops of the trees swinging wildly from side to side. The waves on Lake Murray can be pretty rough when the wind is up. Still, we continued to cross.

About halfway across the lake, the dark skies opened up on us. Almost immediately, waves hit us from both sides as we pushed across the water to get to the other side. Over and over again, as each wave would hit, we were launched upward by the force of the water, only to come crashing down into our seats. Suddenly, a large wave appeared in our path. It was too late to turn to avoid. We took on a lot of water, losing much of our bouyancy. Even smaller waves were now dangerous because they, too, were filling the boat. We had no choice but to keep going.

We decided to try to make it to a small island about 200 yards away. After what seemed like an eternity, we finally reached solid ground. By now, the boat was more than halfway full of water. If we had not reached the island, we surely would have sunk under the weight of the water, our equipment and ourselves.

It took about 30 minutes for the storm to blow over. Before we could empty the boat of water, we had to unload all of the equipment. After flipping the boat over, we put everything back in and began our journey back to the launching area. We didn't even weigh in the fish we'd caught. We just raised the boat onto the trailer and went home. Both of us were just too wet and exhausted to be bothered with the rest of the event.

All of this drama could have been avoided if we had just checked the weather forecast. We learned from our mistake, and we always make sure we check now. Failure to prepare properly can lead to a rough day on the lake.«

WATCHIN'

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
www.noaa.gov

Before Setting Out ...

Pay close attention to the TV weather forecast and listen to detailed marine weather forecasts on NOAA Weather Radio. Take note of small boat cautionary statements, small craft advisories, or gale or storm warnings in the forecasts. The advisories and warnings alert mariners to higher winds and waves either occurring now or forecast to occur up to 24 hours from now. Advisories and warnings for conditions expected later give mariners time to take action to protect life and property.

After Setting Out ...

Don't touch that dial! Stay tuned to NOAA Weather Radio. Changes in the weather often occur out of sight and could be headed your way. Updated warnings and forecasts are aired immediately on NOAA Weather Radio, alerting you to changes that may require action on your part.

Here is some additional information to keep you safe:

- Watch for signs of approaching storms — dark, threatening clouds that may foretell a squall or thunderstorm; a steady increase in wind; or lightning flashes.
- Pay attention to the wind. An increase in wind opposite in direction to a strong tidal current may lead to steep waves capable of broaching a boat.
- Heavy static on your AM radio may be an indication of nearby thunderstorm activity.
- If a thunderstorm is approaching, head for shore if possible. Get out of your boat and away from the water. Find shelter immediately.
- If a thunderstorm catches you while afloat, remember that gusty winds and lightning pose a threat to safety.
 - Ensure your personal flotation device is fastened and prepare for rough seas.
 - Stay below deck if possible.
 - Keep away from metal objects that are not grounded to the boat's protection system.
 - Don't touch more than one grounded object at the same time (or you may become a shortcut for electrical surges passing through the protection system). «

ARE YOUR TIRES FULL OF AIR?

When was the last time you checked the air pressure in the tires of your automobile, truck, motorcycle, boat trailer or recreational vehicle? Can you remember? Or maybe it was done the last time you had an oil change (or at least you hope it was). The fact is proper tire inflation is important to the overall safe operation of your vehicle.



TIRES IT?



GEORGE C. ARZENTE
Installation Safety Office
Fort Campbell, Ky.

Automobile Tires

Properly inflated and maintained tires improve the steering, stopping, traction and load-carrying capability of your vehicle. Therefore, you should maintain proper tire pressure, observe tire and vehicle load limits, avoid road hazards and regularly inspect your tires. Because tires normally lose air over time, it's important to check your vehicle's tire pressure at least once a month. Tires can also suddenly lose air if you drive over a pothole or other object or strike the curb when parking. With radial tires, it's usually not possible to determine if they're underinflated by looking at them. For convenience, purchase a tire pressure gauge to keep in your vehicle. Gauges can be purchased at tire dealerships, auto supply stores and other retail outlets.

When and How to Check Your Tires

The recommended tire inflation pressure suggested by vehicle manufacturers reflects the proper psi when a tire is cold. The term "cold" does not relate to the outside temperature. Rather, a cold tire is one that has not been driven on for at least three hours. When you drive, your tires get warmer, causing the air pressure within them to increase. Therefore, to get an accurate tire pressure reading, you must measure tire pressure when the tires are cold or compensate for the extra pressure if they're warm.

Checking Your Tire Pressure

Find the manufacturer's recommended tire pressure for your car. This information is usually on a placard on the doorjamb on the driver's side (and it is also contained in the owner's manual). It might call for different pressures for the back tires and the front tires.

- Check the pressure when the tires are cold as described above, or you can just check them first thing in the morning.
- Unscrew the valve cap and place it where you won't lose it.
- Press the tire gauge onto the valve stem. There might be a slight hiss as you press the gauge down and as you release it. You only need to do this for a second or two to get an accurate reading.
- Read the tire pressure on the gauge. Compare the tire pressure readings you got with the specified amount called for by the manufacturer. If your tires are not inflated to the specified amount, you need to fill them to meet the manufacturer's recommended air pressure.



Motorcycle Tires

Every year, many riders are injured or killed in crashes caused by underinflated or neglected tires. Such tires decrease stability, limit traction and increase the danger of catastrophic failure. All too many riders fail to check their tire pressures until they notice their bike isn't handling properly. However, waiting to that point can lead to a disaster. Wise riders check their tires before every ride.

Motorcycle Tire Underinflation

Underinflation causes excessive sidewall flexing, which results in heat build-up inside the tire. Heat is a tire's worst enemy, making it more vulnerable to damage from normal road impacts and accelerates tread wear. Excessive heat can also cause hidden interior separations, leading to blowouts. And, as any rider knows, a blowout can cause a loss of control and a serious accident.

Beyond that, low tire pressure reduces the speed at which a tire maintains full contact with wet roads. This is commonly referred to as hydroplaning and is a major hazard. The reason is underinflated tires have a larger "footprint" — area of tread on the road — which lessens the ground contact pressure. This lessens the tire's ability to push water away from the tread while rolling over the road. Both motorcycle and car tires provide their best wet weather traction when properly inflated.

Underinflated tires can also significantly affect a motorcycle's handling, causing a bike that might feel stable while going straight to handle unpredictably when cornering. As a rule, cornering with an underinflated rear tire will cause the bike to oversteer (turn more sharply than anticipated), whereas cornering with an underinflated front tire will cause the bike to understeer (turn less sharply than anticipated). Either situation can be extremely dangerous for riders. Whenever a rider notices their bike is beginning to handle strangely, it's a good idea to stop and check the tire pressures.

Motorcycle Tire Overinflation

Riding on overinflated tires can also be dangerous. Overinflated tires reduce riding comfort and stability and are more susceptible to cuts, punctures or damage by sudden impacts. Overinflation can also result in uneven tire wear and reduce the tires' contact area with the road, reducing the bike's traction while cornering.

It is important to manually check your tire pressure, visibly inspect your tires for wear and damage and regularly rotate your automobile's tires. Remember, when in doubt, consult a tire professional. After all, your life is riding on your tires, so keep the rubber on the road and arrive alive.



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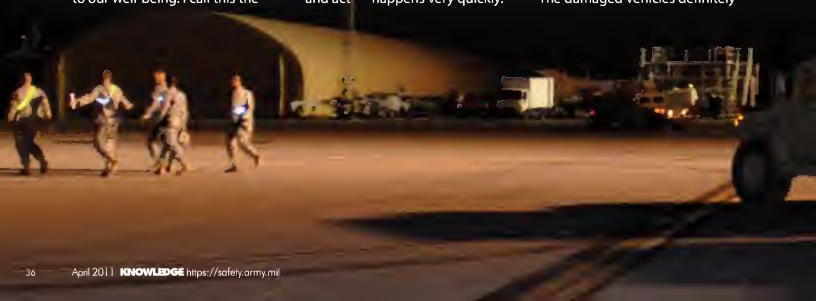
OPERATOR DISTRACTION on

The debate over cell phone or electronic device use in vehicles is a hot topic and makes a great discussion with many opinions. As a former human factors aviation instructor, flight safety investigator and general safety officer, I wish to provide some insight on this topic. Thirty years' experience in the aviation field has taught me one thing: never endorse or recommend the use of any device that interferes with safe operation on the airfield.

The main problem is some people believe they can multi-task — that is drive and talk on the phone at the same time or, worse yet, text on an electronic device. However, when you understand how the brain functions, you'll also understand why we do not multi-task all that well. First, our minds only process one thing at a time and we jump from thought to thought. Our minds are continually processing information from our environment. It is a survival trait, in that we are looking for hazards to our well-being. I call this the awareness stage. Once we become aware of a hazard, we process the implications and then plan and act. We do this instinctively.

A good example would be a deer running in front of your moving vehicle. Once you see the deer (awareness) and take action (plan), your response is to brake hard or steer out of the way. We know what the implications are (collision) and we plan and act, usually without thinking. This full process (avoiding a deer) — awareness, implication, plan and act — happens very quickly. Now if the driver is on the phone, they may see the deer. However, because they're processing verbal information, they might not recognize the implications of failing to plan or take action in time.

I personally experienced this in Winnipeg three years ago. I was picked up by a friend at the airport and on the drive downtown, a young lady smashed into the back of our vehicle. When she got out of her car, she said she was on the phone and didn't see us. Believe it. We were there. The damaged vehicles definitely



the AIRFIELD

MASTER WARRANT OFFICER RAY GILLIS
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proved that happened. However, in my job teaching human factors in aviation, I fully understood what she was experiencing.

The next time you're driving a vehicle on the airfield, think about all the dangers involved. Taxiing aircraft, armament convoying, sweepers, fuel trucks, servicing vehicles and emergency response crews are just a few of the hazards.

Think about how many times we make corrections to operate our vehicles safely. We process visual cues along with sensory information (acceleration, braking, sound), and rather than calling it driving, we are actually operating in a collision avoidance regime. Failing to process information from our surroundings, even for a short time, could lead to a collision with another vehicle or aircraft. This is the main reason for posted speed restrictions on the ramp. The faster we drive, the less reaction time we have to a hazard. When a person talks on the phone, they are not fully processing the visual cues, in that they do not realize the implication of danger and fail to take appropriate actions.

Some argue that it is no different than talking to a fellow passenger. I disagree. The passengers see most of what you see and often will alert you to any dangers. A person on the phone with you sees nothing and is therefore unable to warn you. When you are listening or talking on a phone, you are processing verbal information (not driving information) and when you finally "clue in," it is often too late.

What are the driving signs of "clue out?" Ask any experienced safety officer. You drive erratically, unaware that you may be exceeding the speed limit. Other indicators include sudden stops, tailgating, swerving and crossing active runways without a clearance.

The message is simple: the operation of a motor vehicle on the airfield requires drivers pay full attention to their surroundings. Using a cell phone, BlackBerry or other electronic devices substantially increases your risk for an accident. The safety of operators, passengers, pedestrians and the preservation of resources rely on drivers staying focused and alert to hazards and taking appropriate action to prevent collisions.«

Editor's note: Adapted with permission from Flight Comment.



DRIVING ON 'SNOOZE CONTROL'

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Willow Grove, Pa.



Looking back, there have been a few occasions when I nearly made it into the "statistic" column. However, there is one that really stands out in my mind. It forever ended my perception that I was invincible.

I was a rookie reservist, a private first class in a transportation (heavy boat) unit, based in my coastal hometown of Morehead City, N.C. We were such a hodge-podge unit. Our boats (Landing Craft-Utility) were left over from the World War II era — hand-me-downs from the Navy. Nearly all our field manuals and technical manuals were copied from the U.S. Coast Guard. And to top it off, our training area was on a Marine Corps base. What a mess.

One drill, we were scheduled to qualify with our M-16s at Camp Lejeune, N.C. We were provided maps the Friday night before the drill weekend, as most of us would drive our own vehicles to the range. That would allow us to leave right after we qualified, helping shorten an inevitably long

The National Safety Council (NSC) reports that more than one-third of drivers surveyed admitted to falling asleep behind the wheel. Perhaps even more startling was that 60 percent of those drivers admitted to falling asleep on highways with a posted speed limit of 55 mph or higher. These drowsy drivers not only put themselves at risk, but other motorists around them. Here are some tips from the NSC to keep you awake and alive:



DEAD-TIRED DRIVING

Recognize the symptoms of fatigue

- Eyes closed or going out of focus
- Persistent yawning
- Irritability, restlessness and impatience
- Wandering or disconnected thoughts
- Inability to remember driving the last few miles
- Drifting between lanes or onto the shoulder
- Abnormal speed, tailgating or failure to obey traffic signs
- Back tension, burning eyes, shallow breathing or inattentiveness

Safety tips

- Maintain a regular sleep schedule that allows adequate rest.
- When you show signs of fatigue, get off the road and take a short nap in a well-lit area. Don't simply stop on the side of the road.
- Avoid driving between midnight and 6 a.m.
- When planning long trips:
 - Begin your trip early in the day.
 - Keep the temperature cool in your car.
 - Stop every 100 miles or two hours to get out of the car and walk around. Exercise helps combat fatigue.
 - Stop for light meals and snacks.
 - Drive with your head up, shoulders back and legs flexed at about a 45-degree angle.



duty day. With a little luck, I could make it from home to the range in about an hour and 15 minutes.

I pulled out about 5 a.m. that Saturday morning in my Mitsubishi "Mighty Max" pickup and got to the range without a hitch. I didn't have any breakfast, but what the heck; nothing was open before 6 a.m. anyway. I would regret that decision later.

I reported to the range as ordered. Ever fire on a Marine Corps range? These Marines didn't allow Kevlar helmets on their range. "Wow, this is different," I thought, wondering how much they valued their noggins. After firing 40 rounds, several of us were released with instructions for the next day's drill. So, I turned in my personal battle cannon and jumped back in my pickup. Everything had gone fine so far. I'd found my way to the range, showed a paper target who was the "boss" and headed home for some grub. That is, I thought I was headed home.

It was about half-past noon and I'd been awake since 4 a.m. I was bee-bopping my way home headed north on the highway thinking, "Man — why do my eyelids feel like they weigh 100 pounds?" The hum of the engine and the buzz of the tires on the road were almost hypnotic. I was drifting gently into never-never land when, suddenly, I was jolted back into reality.

"BAM — BAM — BOUNCE — BANG — Ba-BOOM — Ba-BOOM — SMACK!

My eyelids shot wide open. My first thought was, "Holy crap — whoa camel — whoa camel — whoa!"

My "normal" day suddenly turned ugly really fast! It's difficult to convey in words how violently shaken in mind and body I'd become in less than five seconds. I was halfway off the road in a pickup bouncing up and down. Had I awakened one second later, I would have launched at 60 mph down a wet, grassy slope into a stand of trees!

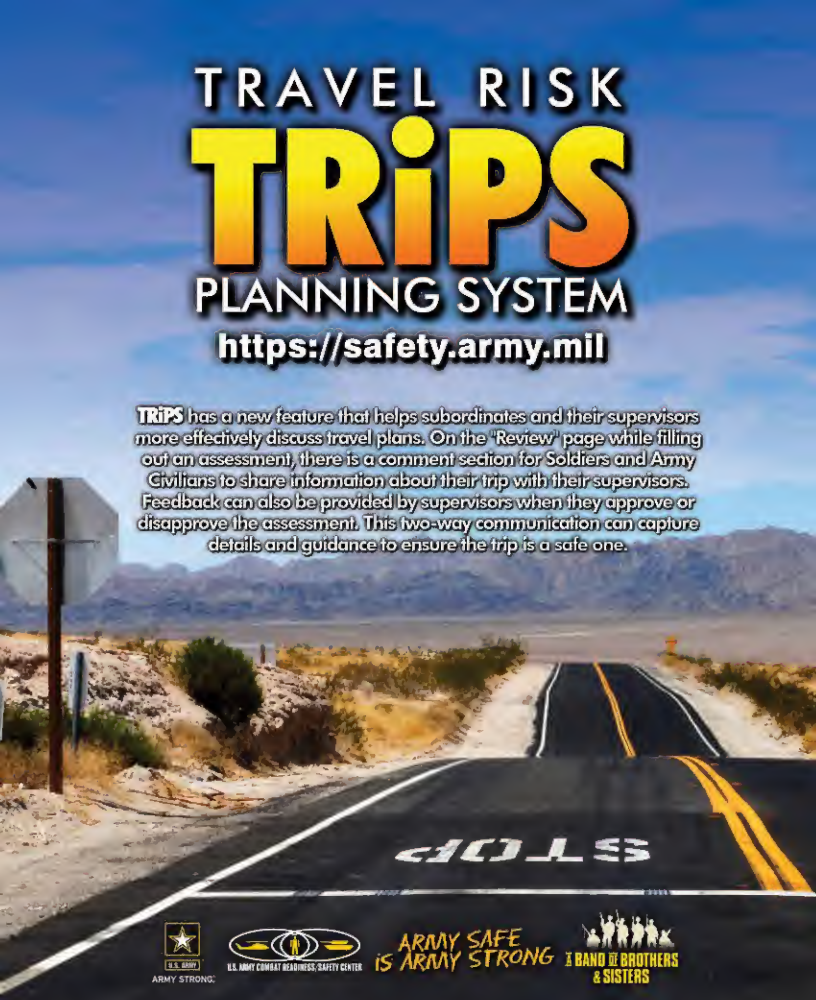
As I tried to maintain control, I remembered being told, "Don't jerk the wheel," in my high school drivers' education class. I was careful not to force my truck back onto the pavement too quickly for fear of catching the front tire on the edge and flipping. While I was being bounced and tossed around, I steered gently to the left to get back on the highway. Fortunately, I made it.

Oh, did I mention this happened only 15 minutes after I'd left the range? That's significant because when your adrenaline fades after doing something, it's easy to become groggy, complacent and even incoherent.

On the upside, I'd maintained my vehicle. The fluid levels were good and my tires had good tread. I didn't have a lot of money, but I took care of my ride. If I hadn't, something else — perhaps a blown tire, could have led to a tragedy. I believe my life was spared that day for various reasons. Maybe one was to share my experience with others.

So what dangerous ingredients went into the mix for my near-disaster that day? How about poor diet (no breakfast), fatigue and complacency. It doesn't take all that many things going wrong to get yourself hurt or killed. Had I taken the time to identify and assess these hazards — the first two steps of composite risk management — I could have reduced my risks. But I was complacent that day. I'd forgotten that the difference between life and death can be as short as one tick of the second hand.

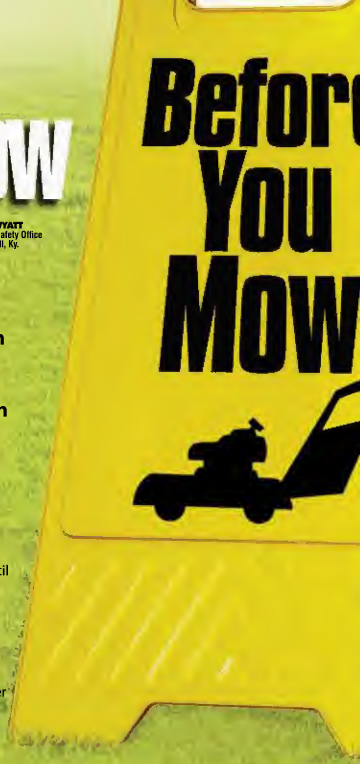
Maybe this is a simple story that I took too long to tell. However, falling asleep at the wheel kills more Soldiers than you might think. Don't let yourself become one of them.


TRAVEL RISK
TRiPS
PLANNING SYSTEM
https://safety.army.mil
TRiPS has a new feature that helps subordinates and their supervisors more effectively discuss travel plans. On the "Review" page while filling out an assessment, there is a comment section for Soldiers and Army Civilians to share information about their trip with their supervisors. Feedback can also be provided by supervisors when they approve or disapprove the assessment. This two-way communication can capture details and guidance to ensure the trip is a safe one.
U.S. ARMY
ARMY STRONG.
U.S. ARMY COMBAT READINESS/SAFETY CENTER
ARMY SAFE IS ARMY STRONG
BAND OF BROTHERS & SISTERS

What to Know Before You Mow

GEORGE WYATT
Installation Safety Office
Fort Campbell, Ky.

For many of us, the arrival of spring signals the desire to resume the quest to have the best-looking lawn on the block. And even for those who don't enjoy yard work, it's a necessary evil — unless you hire someone to maintain your lawn. Before bringing out those yard machines, though, we must ensure they are ready for another season of lawn maintenance.



With many of us preparing to use our lawn equipment for the first time this season, now is a good time to conduct an inspection to ensure everything is running properly. The inspection should identify problems that may prevent the machine from operating safely. It doesn't matter if the equipment is powered by gasoline or electricity, it should all be given a good safety check after its long winter dormancy. Follow these safety tips prior to and during mower operations.

Before You Start

- Inspect your machine for proper installation and operation of all safety guards, switches and levers.
- Make sure you have read or reviewed the operator's manual.
- Inspect your yard to ensure no rocks or other hazardous items are hidden in the grass.
- If the lawn is wet, postpone mowing until conditions are dry.
- Ensure your clothes are durable and fit close to the body to prevent them from being caught on any moving parts. Consider wearing steel-toed safety shoes and never wear sneakers, sandals or flip-flops.
- If using an electric mower, make sure it is always plugged into a grounded three-prong outlet. Any extension cords used with the mower must also be a grounded three-prong plug and receptacle. Ensure cords are kept clear of the mower deck.

While Mowing

- Use safety glasses and hearing protection.
- Avoid driving a riding mower in reverse as much as possible. When it is necessary to reverse the mower, look back to make sure your path is clear.
- Keep children and pets out of the yard until you are finished mowing.
- Keep the mower over grass and avoid gravel or mulch beds, sidewalks, edging material, etc.
- Stay clear of the mowing deck and discharge chute while

the motor is running. Never attempt any maintenance procedure until the mower is off and the spark plug wire has been disconnected from the spark plug(s).

- Never allow additional riders on a riding lawn mower.
- Never exceed the slope limits of a mower. Check slope limits in the operator's manual. Operator weight should be a factor in determining slope limits for riding mowers if it has not already been established in the operator's manual.
- Be aware of the muffler location. Keep unprotected skin away when the muffler is hot.

Another important consideration is who may be allowed to use your mower. Serious thought should be given before allowing children under age 16 to operate a riding mower and age 12 for a push mower. Statistics indicate accident risk significantly increases when children younger than these ages operate these types of mowers.

Other Equipment

Don't forget safety when using other lawn equipment such as weed and grass trimmers, hedge trimmers, edging equipment, chain saws and debris blowers/vacuums — all of which pose various hazards and operator risks. The owner's manual is the best place to start. The manual describes the purpose and operation of the safety devices and usually has a safety checklist to use when conducting an equipment inspection.

Conclusion

Modern lawn equipment is safer than ever. The U.S. Consumer Product Safety Commission requires mower manufacturers install all the up-to-date safety equipment on the machine before it leaves the factory. Because lawn equipment can cause injuries ranging from minor cuts and bruises to loss of vision and amputations, it's important to maintain factory-installed guards, safety switches and safety levers. They should never be intentionally removed or compromised to defeat their designed purpose.

Maintaining our lawn equipment and its factory-installed safety features reduces the risk of accidental injury. To further ensure our safety, we must exercise judgment when using the equipment. Lawn equipment should always be operated as the manufacturer intended. Working with these basic principles in mind will help ensure our yard maintenance remains accident free for another season.«



DID YOU KNOW?

Despite the increased safety features installed on today's lawn maintenance equipment, injuries still occur. According to the American Academy of Pediatrics, an estimated 68,000 Americans are injured each year in lawn mower accidents — with more than 9,000 of those accident victims under the age of 18.

LOST

AVIATION

AH-64D



CLASS C

- The engine control lever was inadvertently placed in the lockout position during aircraft run-up, resulting in an overspeed of both engines.

HH-60M



CLASS B

- The aircraft touched down hard shortly after takeoff, resulting in damage to the tail wheel strut and forward-looking infrared radar.

OH-58D(I)



CLASS C

- The crew reported a full authority digital electronic control (FADEC) FAIL upon takeoff from the forward arming and refueling point. The engine power turbine speed (NP) overspeed was confirmed at 126 percent for 16 seconds.

OH-58D(R)



CLASS A

- An instructor pilot was killed and a student pilot injured when the aircraft crashed during Stage 1 night vision goggle gunnery training. A post-crash fire consumed the aircraft.

UH-60A



CLASS C

- The crew experienced a hard landing during brownout conditions. The tail wheel strut, tire, stabilator and airframe sustained damage.

UH-60L



CLASS C

- During a terrain flight demonstration, the aircraft stabilator contacted water.

UH-72A



CLASS A

- While conducting overwater flight, the aircraft impacted the ocean.

UAS

RQ-7B



CLASS C

- The unmanned aircraft (UA) struck the ground during launch; however, it maneuvered to altitude for landing without further incident. The payload, main landing gear and prop were damaged.

- The UA experienced an engine failure during flight. The recovery chute deployed, but the UA was not recovered.

GROUND

Personnel Injury



CLASS A

- A Soldier died when he fell four stories through a skylight he was attempting to cover with a tarp.

- A Soldier died after he lost consciousness during a pre-scuba training course.

- A Soldier died after he fired a round from a handgun into his temple. At the time of the accident, the Soldier was demonstrating that the weapon was not loaded.

CLASS B

- A Soldier's fingertip was severed when it was caught in a barracks door.





Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, e-mail safe.knowledge@conus.army.mil.

DRIVING

POV



CLASS A

- A Soldier was killed when he exited his vehicle at the scene of a minor traffic accident and was struck by an oncoming vehicle and thrown over a freeway bypass.

- A Soldier was attempting to pass another vehicle in icy conditions on a bridge when he lost control, went off the road, struck a tree and was ejected. The Soldier, who was not wearing his seat belt, died later that day.

POM



CLASS A

- A Soldier was killed when he was thrown from his speeding motorcycle after entering a median and striking a culvert. Although the Soldier was wearing the required personal protective equipment, he hadn't registered his motorcycle or completed Motorcycle Safety Foundation training.

- A Soldier was killed when he struck a sedan driven by another Soldier who had run a red light at an intersection.

ATV

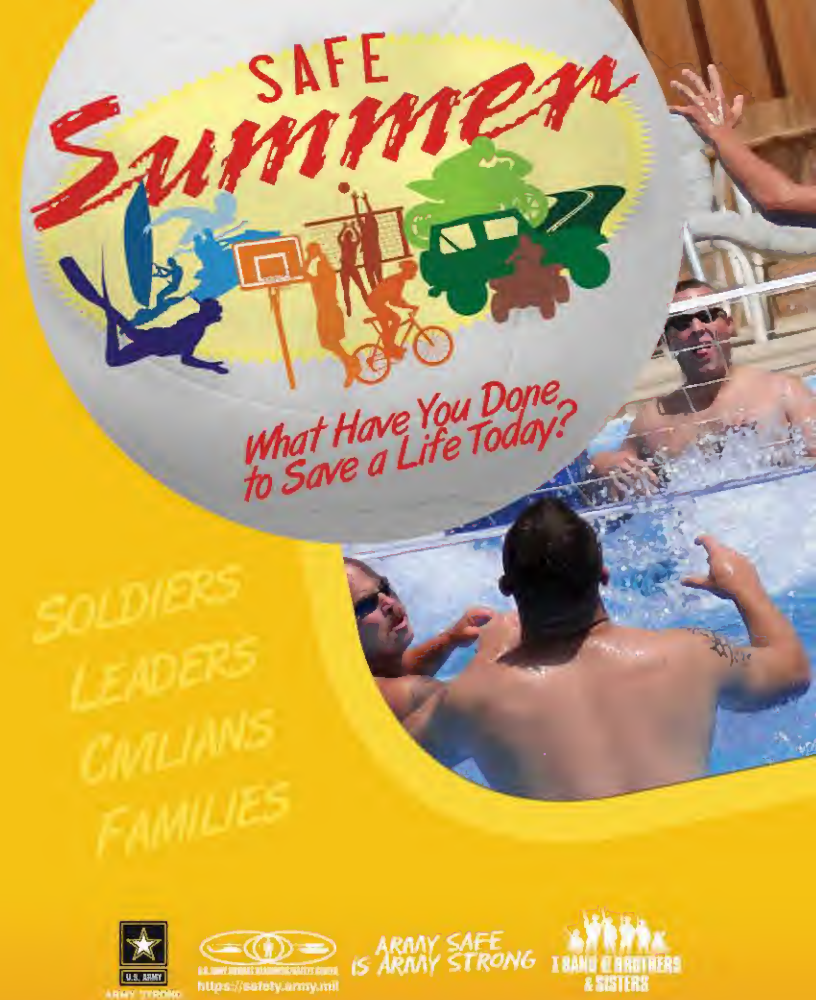


CLASS A

- A Soldier was riding a snowmobile on a designated trail when he lost control on a rough section, collided with another snowmobile and struck an embankment. The Soldier was pronounced dead at a local medical center.






SAFE
Summer
What Have You Done to Save a Life Today?
SOLDIERS
LEADERS
CIVILIANS
FAMILIES
U.S. ARMY
ARMY STRONG
https://safety.army.mil
ARMY SAFE IS ARMY STRONG
1 BAND OF BROTHERS & SISTERS

Take 5
for Safety!
Before the fun starts, stop and Take 5 to save a life this summer.


Family strong!
Army Safe is Army Strong and that starts with a Soldier's Family. Have the information to help you and your Family stay safe.
Family
engagement kit
https://safety.army.mil
ARMY SAFE IS ARMY STRONG
A BAND OF BROTHERS & SISTERS